

*C14 Sub 2*  
 1. (Amended) A stable calcium phosphate complex including phosphopeptide stabilized calcium fluoride phosphate or a derivative thereof wherein said phosphopeptide includes the amino acid sequence Ser(P)-Ser(P)-Ser(P)-Glu-Glu (SEQ ID NO: 5).

*Sub 3*  
 4. (Amended) A complex according to claim 3 wherein said phosphopeptide includes an amino acid sequence selected from any one of:

- C15*
- (SEQ ID NO: 1) Gln<sup>59</sup>-Met-Glu-Ala-Glu-Ser(P)-Ile-Ser(P)-Ser(P)-Ser(P)-Glu-Ile-Val-Pro-Asn-Ser(P)-Val-Glu-Gln-Lys<sup>79</sup>.  $\alpha_{s1}(59-79)$
  - (SEQ ID NO: 2) Arg<sup>1</sup>-Glu-Leu<sup>8</sup>-Glu-Ile-Leu-Asn-Val-Pro-Gly-Glu-Ile-Val-Glu-Ser(P)-Leu-Ser(P)-Ser(P)-Ser(P)-Glu-Glu-Ser-Ile-Thr-Arg<sup>25</sup>.  $\beta(1-25)$
  - (SEQ ID NO: 3) Asn<sup>46</sup>-Ala-Asn-Glu-Glu-Glu-Tyr-Ser-Ile-Gly-Ser(P)-Ser(P)-Ser(P)-Glu-Glu-Ser(P)-Ala-Glu-Val-Ala-Thr-Glu-Glu-Val-Lys<sup>70</sup>.  $\alpha_{s2}(46-70)$
  - (SEQ ID NO: 4) Lys<sup>1</sup>-Asn-Thr-Met-Glu-His-Val-Ser(P)-Ser(P)-Ser(P)-Glu-Glu-Ser-Ile-Ile-Ser(P)-Gln-Glu-Thr-Tyr-Lys<sup>21</sup>.  $\alpha_{s2}(1-21)$

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 5. (Amended) A complex according to claim 3 wherein said phosphopeptide includes the amino acid sequence (SEQ ID NO: 1):

Gln<sup>59</sup>-Met-Glu-Ala-Glu-Ser(P)-Ile-Ser(P)-Ser(P)-Ser(P)-Glu-Ile-Val-Pro-Asn-Ser(P)-Val-Glu-Gln-Lys<sup>79</sup>.  $\alpha_{s1}(59-79)$

*Sub 4*  
*C14*  
 7. (Amended) A stable soluble alkaline calcium phosphate comprising phosphopeptide-stabilized amorphous calcium phosphate or a derivative thereof wherein said phosphopeptide includes the amino acid sequence Ser(P)-Ser(P)-Ser(P)-Glu-Glu and said amorphous calcium phosphate or the derivative thereof is alkaline.

9. **(Amended)** A complex according to claim 8 further including  $\text{HPO}_4^{(2-)}$ .

10. **(Amended)** A complex according to claim 9 wherein said phosphopeptide includes an amino acid sequence selected from any one of:

- (SEQ ID NO: 1)  $\text{Gln}^{59}\text{-Met-Glu-Ala-Gelu-Ser(P)-Ile-Ser(P)-Ser(P)-Ser(P)-Glu-Ile-Val-Pro-Asn-Ser(P)-Val-Glu-Gln-Lys}^{79}$ .  $\alpha_{s1}(59-79)$
- (SEQ ID NO: 2)  $\text{Arg}^1\text{-Glu-Leu-Glu-Ile-Leu-Asn-Val-Pro-Gly-Glu-Ile-Val-Glu-Ser(P)-Leu-Ser(P)-Ser(P)-Ser(P)-Glu-Glu-Ser-Ile-Thr-Arg}^{25}$ .  $\beta(1-25)$
- (SEQ ID NO: 3)  $\text{Asn}^{46}\text{-Ala-Asn-Glu-Glu-Glu-Tyr-Ser-Ile-Gly-Ser(P)-Ser(P)-Ser(P)-Glu-Glu-Ser(P)-Ala-Glu-Val-Ala-Thr-Glu-Glu-Val-Lys}^{70}$ .  $\alpha_{s2}(46-70)$
- (SEQ ID NO: 4)  $\text{Lys}^1\text{-Asn-Thr-Met-Glu-His-Val-Ser(P)-Ser(P)-Ser(P)-Glu-Glu-Ser-Ile-Ile-Ser(P)-Gln-Glu-Thr-Tyr-Lys}^{21}$ .  $\alpha_{s2}(1-21)$

11. **(Amended)** A complex according to claim 9 wherein said phosphopeptide includes the amino acid sequence (SEQ ID NO: 1):

$\text{Gln}^{59}\text{-Met-Glu-Ala-Gelu-Ser(P)-Ile-Ser(P)-Ser(P)-Ser(P)-Glu-Ile-Val-Pro-Asn-Ser(P)-Val-Glu-Gln-Lys}^{79}$ .  $\alpha_{s1}(59-79)$

12. **(Twice Amended)** A complex according to claim 11 having the formula  $[(\text{PP})(\text{CP}_8)]_n$  where n is equal to or greater than 1, wherein "PP" represents a phosphopeptide, and "CP" represents calcium phosphate.

13. **(Twice Amended)** A complex according to claims 12 having the formula  $[(\text{PP})(\text{CP}_8)]_6$  wherein "PP" represents a phosphopeptide, and "CP" represents calcium phosphate.

Please add the following new claims:

39. (New) An anticariogenic composition including a delivery vehicle adapted to co-localize ions including calcium and phosphate ions at a target site, wherein said delivery vehicle comprising, as an active ingredients, the complex of claim 7.

40. (New) The anticariogenic composition of Claim 39, wherein said delivery vehicle is selected from the group consisting of toothpaste, toothpowder, liquid dentifrice, mouthwash, troches, chewing gum, dental paste, gingival massage cream, gargle tablets, dairy products and other foodstuffs.

### IN THE ABSTRACT

Phosphopeptides containing the Ser(P) cluster sequence motif Ser(P)-Ser(P)-Ser(P)-Glu-Glu- can stabilise their own weight in amorphous calcium phosphate (ACP)  $[\text{Ca}_3(\text{PO}_4)_{1.87}(\text{HPO}_4)_{0.2} \times \text{H}_2\text{O}]$  and amorphous calcium fluoride phosphate (ACFP)  $[\text{Ca}_8(\text{PO}_4)_5 \text{F} \times \text{H}_2\text{O}]$ . The amorphous phases stablized by the phosphopeptides are an excellent delivry vehicle to co-localise Ca, F, and phosphate at the tooth surface in a slow-release amorphous form producing superior anticaries efficacy. These amorphous phases stablised by the phosphopeptides also have utility as dietary supplements to increase calcium bioavailability and to help prevent diseases associated with calcium deficiencies.

### REMARKS

Applicant renews his request for reconsideration of the present application, in view of the foregoing amendment and the following remarks.

#### I. Introduction

Claims 1-28 and 30-40 are pending. Claim 29 has been cancelled without prejudice or disclaimer to expedite prosecution. Claims 39 and 40 have been added. Support for added claims can be found throughout the specification, for example, at page ?? , lines ?? (incorporate later) . Claim 7 has been amended to define more specifically amorphous calcium phosphate or the derivative thereof, and to correct a typographical error. Claim 9 has been amended to present  $\text{HPO}_4$  as a correct ionic form,  $\text{HPO}_4^{(2-)}$ . Claims 12 and 13 have been amended to add the definition of the recited